Telefónica Response to the Second Radio Spectrum Policy Group Opinion on 5G Networks

Introduction

A clear roadmap of spectrum availability across the EU, and the expectation of a licensing framework that provides in all countries the appropriate investment incentives to prospective licensees and to equipment manufacturers, are essential for the development of 5G in Europe. The Radio Spectrum Policy Group gathers together all national spectrum regulators, and is particularly well placed to generate the appropriate expectations through its Opinions. We therefore welcome the RSPG initiative and the opportunity to participate in the process.

The industry associations GSMA and ETNO, of which Telefónica is an active member, have submitted separate responses to this consultation, addressing in detail the ten points raised in the RSPG draft Opinion. Telefónica fully endorses the views expressed by GSMA and ETNO. In this individual response, we would like to draw attention to a reduced set of issues where, in our view, clearer statements from RSPG would be helpful creating the right expectations for investors.

Roadmap for the availability of spectrum in pioneer bands

The RSPG Opinion should strengthen the prospects of the full 3400-3800 MHz band being made available by 2020 across the EU. The statement in the draft opinion indicating that "member States should consider appropriate measures to defragment the 3.6 GHz band, the primary 5G band, in time for authorising sufficiently large blocks of spectrum by 2020" is in our view not bold enough, and a stronger commitment in the RSPG Opinion to make available for 5G use the full band would be necessary. Where the band is in use by other incumbent services, RSPG members should commit not to hold assignment processes until sharing mechanisms and/or clearance of incumbent users can be achieved in an efficient manner. Finally, where partial assignments of the band are planned, RSPG should advice its members to make available clear time-plans for the release and authorisation of the full band. Even when only a subset of frequencies is immediately available, bidders still need visibility of the prospects for the whole band (3400-3800 MHz), in order to make informed choices in the auction and commit resources to 5G ahead of the award.

Availability and authorisation of the 26 GHz band is, in our opinion, not as urgent as that of the 3.6 GHz band. We note that the RSPG foresees a progressive release of the 3.25 GHz available in the band, to "facilitate an efficient introduction of 5G without having an unnecessary negative impact on the current users of the band". We also note that the objective is to release by 2020 one GHz per market, but probably with geographical exceptions, considering the reference to this frequency range being used for "local coverage". We agree that in the short and medium term the demand for this band for 5G services will be limited, while fixed links in the band will be in use for backhaul for a number of years. We therefore agree with the "wait and see" approach of RSPG in the short term, and suggest RSPG to more clearly establish that the one GHz that will be made available by 2020 is in the upper part of the band (26.5-27.5), that is not used for fixed links and where an ecosystem will develop more easily due to proximity with the 28 GHz band. Those administrations who want to be amongst the

early adopters of licensing the 26 GHz band for 5G services and initiate award processes for the upper part (26.5-27.5 GHz), should in any case provide visibility of the prospects for the whole band (24.25-27.5 GHz) before implementing any award procedure. This should include an overview of the availability of the different, current usages across the whole band[1] as well as the option for the existing licensees (e.g. PtP) to implement migration plans towards 5G services, depending on own business needs.

We still believe, however, that in the long run (i.e. 2025) the target should be to make available the full band for 5G services in as many areas as practically possible. Again, the RSPG opinion should establish this goal clearly and plans for the availability and authorisation of the full band should be available at the time of awards, also including migration options from current fixed services towards future 5G services.

Authorisation models

The draft RSPG Opinion grants full flexibility to Member States to decide the way they authorise access to spectrum, including the geographical scope of the authorisation (national, regional, city or hyper-local), and the degree of exclusivity.

In our view, there is a need for a more consistent approach to Authorisations in the 3.6 GHz and 26 GHz bands, in favour of exclusive and wide-area licensing. Fragmentation of the bands through a myriad of new small licences would reduce the amount of spectrum available for 5G operators that have a national and multi-sectoral approach, putting at risk the development of economies of scale and scope and the development of 5G services across the EU. A particularly negative situation could arise if a limited number of regional licenses (summing up to a nation-wide coverage) with different obligations (compared to a nation-wide license) were awarded and prospective or actual national licensees would not be allowed to compete for the regional licences – in this case, a distorting market entry would be enabled.

The draft RSPG opinion does not contribute to reducing the probability of a fragmented scenario. We believe everyone would benefit from a clearer RSPG position in this respect.

Sharing with existing users

The Annex in the draft RSPG opinion devotes considerable attention to co-existence of new 5G licensees and existing uses in the 3.6 GHz and the 26 GHz bands. Whilst we acknowledge that this co-existence is unavoidable to a certain extent, we think the RSPG opinion should more clearly reassure prospective new licensees that this co-existence will not impose large constraints on the deployment of 5G networks. In particular, RSPG should explicitly indicate that:

- New stations of incumbent uses will not be authorised at all in the 3400-3800 band.
- In the 26 GHz band, new stations will not be authorised from now on in areas of likely 5G demand. After new authorisations are granted for new harmonised uses in this band, any new stations of incumbent uses shall not be installed without the explicit consent of the new licensee.

[1] Germany can be referenced as a good example, where the sub-bands 24.801-24.997/25.809-26.005 GHz and 25.165-25.445/26.173-26.453 GHz are heavily used by fixed links (PtP) and the bands 25.025-25,137/26.033-26.145 GHz (former PMP) and 26.5-27.5 GHz (former military usage) are more lightly used.

- In those cases where the incumbent user and the new licensee might be the same (location and spectrum wise), according migration plans towards 5G services shall be enabled, depending on own business needs and free of any mandated timing / regulation.

Spectrum pricing and Security of tenure in spectrum licences

The cost of spectrum assets and the expected duration of the rights of use have a large impact on operator's incentives and ability to develop and deploy 5G networks and services. The RSPG should address them from an EU perspective, reducing uncertainty over licence tenure in all Member States, and creating confidence that all across the EU efficiency will be prioritized over spectrum revenues.

We understand that pricing and duration of rights of use for 5G are outside of the scope of the draft Opinion, but we also note that they are as important as the topics that are covered, and perhaps more relevant for the success of 5G. They should be included as appropriate in the RSPG workflows and Opinions.